



Oliver Tucker: The market continues to evolve and that necessitates a big investment to stay ahead of the curve.

Beyond the hype IoT is creating transformative new apps, services and experiences

Oliver Tucker is the chief executive and co-founder of Wireless Logic, the provider of M2M/IoT managed services across mobile, satellite, low power wireless networks and fixed lines. Established in 2000 with Philip Cole, the company can overlay a private, secure network across global mobile networks to give customers access to an otherwise high cost and complex platform.

At the heart of Wireless Logic's offering is NetPro, an infrastructure that enables organisations to deploy secure and resilient network structures with no capex, stringent service level agreements and a fixed IP address for each mobile device. The company's SIMPro platform is now used by more than 95% of its customers to provide complete, one window visibility, control and management, tailored billing and reporting functions across their multiple SIM estates.

As the IoT market matures, so the choice of network technologies coming to market widens as more business to consumer (B2C) activity begins. Talking to George Malim, Tucker shares his insight on the current market and where he sees the future opportunities for success ►

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George Malim: What has been the greatest change you have seen in the market in the last two years?

Oliver Tucker: There have been multiple changes in the last two years. At the macro level, businesses and governments are starting to see how IoT can improve bottom lines while before organisations were a little hesitant about the benefits. That indecision in the business-to-business (B2B) market has now gone and, while consumers have lagged behind in terms of seeing the benefits of IoT, they are now starting to see the potential across a number of markets including healthcare, home management and in-car entertainment. It's a buzz that is driving greater investment in the IoT ecosystem with connectivity, module and application development topping the agenda. As a result, many more players are entering the market place, which with a compound annual growth rate of 15-25% is proving to be a very attractive proposition to new entrants.

We're now seeing established companies like IBM and Intel making big investments in IoT and companies, such as those in smart energy, all have an IoT strategy and an eye on developing innovative technologies.

At the micro level, we're seeing more sophisticated applications that by their very nature, require more data. Data commoditisation is a hot topic as the number of devices that communicate data increases exponentially. A good example of this is vehicle tracking. A few years ago companies just tracked a vehicle to ensure it was travelling as expected. Now apps are tracking the driver, the items being delivered and picked-up as well as providing analytics for the engine diagnostics.

IoT in general is inherently very complex. It involves hardware, software, middleware, storage, security, integration into platforms and connectivity. Partnerships therefore have become far more important. People recognise that collaboration is the way forward as it is

impossible for one company to provide a complete end-to-end solution working in isolation.

On the connectivity side, technologies such as low power wide area networks (LPWAN) are coming to market and contributing to the confusion over competing technologies and standards. Cellular remains dominant for now but a lack of clarity exists over which LPWAN technology will reign supreme. I don't think there will be any clear winner in the short term. We will see a requirement for different technologies from a mix of providers.

Finally, there is a growing noise about multi-IMSI/profile SIMs and embedded soft SIMs. With the 2G sunset issues in the US highlighting the cost of swapping out SIMs in stranded assets in the field, customers want more control over their connections and believe that the ability to swap networks without changing SIMs is relevant. However, this is not applicable to all applications or all countries but is especially relevant to those organisations which currently ship assets to multiple territories.

GM: How is the IoT industry working to address the increasing concern about security in the market?

OT: Security is still a huge issue. Hackers remain an endemic threat so protecting customer data and infrastructures is as vital now as ever. Hackers have the power to curtail a company's performance and bottom-line so there are huge implications as the market moves to serve sensitive applications such as health-related devices.

There have been many examples of IoT devices being compromised recently and if security is not prioritised, the whole business opportunity of IoT could be severely undermined. But, to combat the threat we're now seeing companies teaming up to secure IoT devices with encryption and secure boot technologies. In our part of the ecosystem, at the network layer, Wireless Logic continues to ►



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invest in network layer security as well as technologies such as deep packet inspection (DPI) to detect anomalies in traffic patterns.

Security is simply vital and we are now finally seeing a collective effort from industry to minimise risk from attacks. But it will remain an on-going work in progress.

GM: What is the impact on IoT connectivity providers' business models of user demand for greater flexibility in contract terms, adaptable tariffs and aggregation?

OT: Flexibility is where Wireless Logic can make a real tangible difference to our customers. Businesses that have been focused on the B2B2B opportunity have customers who don't mind fixed term contracts but they do want data pooling. However, consumers want flexibility to pay as they go or top up as required. Therefore businesses that sell to consumers increasingly require enablement platforms to bring them close to the customer and add connectivity as demanded to particular devices.

Aggregation or pooling of data when you have 10,000 assets in the field is critical to achieving efficient operations but this depends on platforms that are able to manage and service the assets. The days of customers asking for a data tariff are gone – they want real-time data usage, to get alerts when tariffs are exceeded and to have full control over their estate of assets. The market has evolved and become more sophisticated as have the demands of our customers and that necessitates a continual investment in both our software platform and our overlay network. Being able to control the connectivity at a network level will prove even more significant as consumer demands rise. The barrier to entry is quite high which is why there have been few new market entrants in our part of the ecosystem over the last few years.

GM: How important is it that providers are specialised and understand the specific needs of each vertical they address?

OT: It's hugely important. For example, to be successful in fleet tracking demands a highly verticalised specialism. Companies that have emerged from this industry who know what is required have incorporated connectivity capability into their specifically developed apps. Ultimately their success is down to their vertical expertise. However, if you look at many middleware vendors, a lack of market knowledge in specialist sectors has resulted in offerings which are less compelling and have compromised the proposition.

In the B2B market place it is specialised providers that are demonstrating huge success. Who are you going to go to for health services – a network operator, a generalist or a healthcare provider? The answer's obvious and that's why vertical providers with specific understanding of their markets are succeeding. That doesn't mean platform providers won't gain traction eventually but to date it is the specialists that have stood out.

GM: What is behind the growing trend for delivering value-added bolt-ons?

OT: As soon as a customer comes on board, we focus on how to add value to their offering. For example, our proven track record has seen huge success with mapping as an additional service because many customers benefiting from our connectivity services require this along with location based services as part of their application. Fundamentally, we never wanted to be just a 'pipe' for the operators and never have been. With our SIMPro connectivity platform and NetPro overlay network we offer choice and services such as device management and world-class mapping solutions from HERE and Google Maps. Most recently, an entirely new hardware-based suite of services has been introduced to flesh out and enrich the offering even further. It is precisely this approach which continues to differentiate us even more in the market place from the networks themselves and some of our competitors.

GM: What about technological changes? What's the impact of OEMs driving the need for multi-profile SIMs, for example? ►



OT: Technology wise, we've seen the proliferation of bearer systems, such as LPWAN and NB-IoT with the full impact and repercussions still to play out. With different technologies and standards, there is probably more confusion in the market place than ever before, alongside the increased opportunities

In terms of multi-IMSI/multi-profile technologies, huge potential exists especially from OEMs. As the more flexible SIM technologies come on-board, I expect to see applications evolving in terms of the ability to switch networks over-the-air, and enable real-time data control/capping which will become even more vital as the size of data consumption increases. Usage, control and extendable SIM life will all benefit from the incoming technologies.

Notably, there is no one SIM that fits all - at least commercially. Some SIMs will be applicable for high data applications, while others will work commercially for low bandwidth. But, as the original equipment market (OEM) starts to gain traction and manufacturers start to get closer to their customers, there is a growing focus on the end user's requirement.

GM: Does the market still suffer from excessive hype? What are the challenges of separating pipe dreams from viable propositions?

OT: Inevitably hype still prevails because IoT is full of potential and possibility, however that's not a reason to ignore the market. There has been huge progress in the last two years; making things or machines intelligent isn't new, it has been around for years. What is new, however, is the economics and where IoT has been successful is in areas such as maintenance systems, the protection of assets and monitoring.

On the consumer side the situation is less clear. For example, for all the buzz around smart technology in the home, we need to cut through the hyperbole and think about the actual user experience and who really stands to benefit. The benefits to businesses are clear in reduced operational costs and

helping to deliver new offerings, but on the consumer side the plus points are less apparent at the moment.

Ultimately, IoT is disruptive and presents a fundamental shift in how we do things. Yes, there's hype but IoT will create really interesting new apps, services and experiences which offer substance and tangible improvements to both our commercial and domestic lives.

GM: Given the accelerated rate of change where does Wireless Logic fit into the IoT landscape today and where do you see the company developing in the next two years?

OT: I'm a firm believer in focus. IoT systems are very complex and comprise a substantial ecosystem. Our success lies in homing in at what we are good at and capitalising on our European focus with a global reach. The European market is fragmented and very complex...

We are a leader in providing infrastructure to transport data securely over multiple bearers as well as platforms to control and manage assets. We're good at it and we provide choice to the customer.

People question the Chinese or Indian markets as an expansion target and I'm sure they are huge but so is Europe and we've made significant inroads here. This will continue to be our focus, though that doesn't mean we will not pursue opportunities in other locations as they arise.

We've built a reputation for supplying connectivity platforms - we offer choice of bearer services and we can transmit data securely. We're network agnostic and bearer service agnostic. We understand and address the B2B2B and B2B2C market and we have developed platforms that can enable manufacturers to add connectivity to their devices. It has worked so far and I am confident our future will continue in a successful vein if we maintain this winning approach. ■